



ECMA/TC38-TG3/2015/026 (Rev. 1 – 15 April 2015)

Annex B2 - Product environmental attributes Notebooks and Tablets

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	Lenovo	Logo		
Company name *	Lenovo			
Contact information * e-mail address	Lenovo Global Environmental Affairs Alvin L Carter alcarter@lenovo.com	Lenovo		
Internet site *	http://www.lenovo.com/social_responsibility/us/en/environment	.html		
Additional information	The latest version of this document can be found at:			
	http://www.lenovo.com/ecodeclaration			

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.				
Type of product *	NB			
Commercial name *	Lenovo ideapad 520S-14			
Model number *	81BL, 81BM			
Issue date *	2017/7/24			
Intended market *	Global Europe Asia, Pacific & Japan Americas Other			
Additional information				

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B2

Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:

P4.1 – P4.3 Consumable materials

P9.1 TEC and Print speed

P10.2 - P10.3 Chemical emissions from printing products

P11.1 - P11.3 Consumable materials for printing products

wodei nu	mber "	81BL, 81BW	Logo	Land)\/C	
Issue dat	e *	2017/7/24		Lend		J _{TM}
Product	environ	mental attributes - Legal requirements		Require	ment	met
Item				Yes	No	n.a.
P1	Hazardo	ous substances and preparations				
P1.1*	Products	do comply with current European RoHS Directive. (See legal reference and NOTE	B1)			
P1.2*		s do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.				
P1.3* Products do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), hydrobromofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachloride, 1,1,1-trichloroethane, methyl bromide (see legal reference). Comment: Legal reference has no maximum concentration values.						
P1.4*	Products	do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polychel (PCT) in preparations (see legal reference).	lorinated			
P1.5*	Products	do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 car ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	bon atoms in t	ne 🔀		
P1.6*	(see lega	th direct and prolonged skin contact do not release nickel in concentrations above (al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.),5 μg/cm²/wee	ek 🔀		
P1.7*		Article 33 information about substances in articles is available at (add URL or mail	contact):			
P2	Batterie	s				
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with Information on proper disposal is provided in user manual. (See legal reference)	the disposal			
P2.2*		or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadn	nium. (See leg	al 🔀		
P2.3*		s and accumulators are readily removable. (See legal reference)		\square		
P3	Conforn	nity verification & Eco design (ErP)				
P3.1*	The proc The Dec	duct is CE-marked to show conformance with applicable legal requirements (see legal requirements): laration of Conformity can be requested at (add link or e-mail address): www3.lenovo.com/us/en/social_responsibility/EU_DoC_notebooks/	gal reference).			
P3.2*	The proc	duct complies with the Eco design requirements for energy-related products, al reference).				
	-	d information is; given in item P15 or added to this document, available at (add URL):				
	https://v	vww3.lenovo.com/us/en/social_responsibility/datasheets_notebooks/				
P5		packaging				
P5.1*		ng and packaging components do not contain more than 0,01% lead, mercurent chromium by weight of these together.	y, cadmium a	nd 🔀		
P5.2*	The pack	kaging materials are marked with abbreviations and numbers indicating the nature e legal reference).	of the material	(s) 🔀		
P5.3*	Protocol	duct packaging material is free from ozone depleting substances as specified (see legal reference). nt: Legal reference has no maximum concentration values.	in the Montre	eal 🔀		
P6		nt information				
•	Janii 16					

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Information for recyclers/treatment facilities is available (see legal reference).

P6 P6.1*

Model number *	81BL, 81BM	Logo	Longvo
Issue date *	2017/7/24		Lei Iovo.

Product	environmental attributes - Market requirements (See General NOTE GN below)			
		equire	ment	met
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.
P7	Design Disassembly, recycling			
P7.1*	Parts that have to be treated separately are easily separable			
P7.2*	Plastic materials in covers/housing have no surface coating.		X	
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.			X
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.	X	Ħ	
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		Ħ	
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).	$\overline{\mathbb{X}}$	H	
	Product lifetime			
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives	\boxtimes	П	
P7.8*	Upgrading can be done using commonly available tools		\Box	
P7.9	Spare parts are available after end of production for: 5 years			
P7.10	Service is available after end of production for: 5 years	-		
	Material and substance requirements			
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):			
D7 40	Material type: PC+ABS Material type: Metal Material type: Aluminum	<u> </u>		
P7.12	Insulation materials of external electrical cables are PVC free.			
P7.13	Insulation materials of internal electrical cables are PVC free.		X	-
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1% weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, and	\times	Ш	
	polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts			
	containing more than 25% post-consumer recycled content.			
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are low halogen as defined in IEC 61249-2-21. (See 1NOTE B2)			
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: >PC+ABC<			
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components):			
	TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other: chemical name, CAS #:	\boxtimes	Ш	Ш
	Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g			
	according ISO 1043-4: <i>FR16</i>		Ш	
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations in			
	concentrations above 0,1%: 1. Chemical name: , CAS #: (See NOTE B4)		Ш	
	2. Chemical name: , CAS #: "GEC NOTE BTY			
	3. Chemical name: , CAS #: "			
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:			
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been		$\overline{\Box}$	\boxtimes
	assigned the following Risk phrases; and Hazard statements:	_		
	The source(s) for these classifications is/are found at (add URL(s)): , (See note B5)			
P7.20*	Postconsumer recycled plastic material content is used in the product (See Note B6):	\boxtimes		
	If YES; at least one of the two alternatives below shall be answered;			
	a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content (calculated as			
	a percentage of total plastic by weight) is 0.6%.			
	or b) The weight of recycled material is 4 g.			

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model number *	81BL, 81BM	Logo	Lopovo
Issue date *	2017/7/24		LEI IOVO.

Product environmental attributes - Market requirements (continued) Requirement met						
Item					Yes N	o n.a.
	tance requirements					
P7.21* Biobased plastic m	aterial content is used	I in the product (See N	OTE B7):			
		s below shall be answ				
			material content (calcu	llated as a percentage)	
of total plastic or	by weight) is %).				
_	the biobased plastic r	naterial is g.				
		less than 0,1 mg/lamp				
	specify: Number of lan	nps: and maxim	num mercury content pe	er lamp: mg		
P8 Batteries P8.1* Battery chemical co	omnosition:					
	tion (See NOTE B8)					
		s or energy consumpti	ons are reported:			
Energy mode *	Power level at	Power level at	Power level at	Reference/Standard	for ener	gy
	100 V AC	115 V AC	230 V AC	modes and test met	hod *	
Peak (On-max)	65 W	65 W	65 W	Full load		
Category NBI1						
Short Idle State - WOL	5.03 W	5.034 W	5.043 W	Reference		
Enabled	3.03 VV	5.034 VV	5.043 VV	Reference		
	0.747104	0.747104	0.70			
Long Idle State - WOL Enabled	2.715 W	2.715 W	2.76 W	Reference		
Litabled						
Sleep (S3) - WOL Enabled	0.381 W	0.387 W	0.437 W	Reference		
Sleep (S3) - WOL Disabled	0.377 W	0.383 W	0.434 W	Reference		
Off (S5) - WOL Enabled	0.208 W	0.219 W	0.274 W	Reference		
Off (S5) - WOL Disabled	0.205 W	0.216 W	0.271 W	Reference		
On (OO) - WOL Disabled						
	17.221 W	17.274 W	17.661 W	Reference		
Category NBI2						
Short Idle State - WOL	4.24 W	4.24 W	4.262 W	Reference		
Enabled						
Long Idle State - WOL	2.105 W	2.109 W	2.146 W	Reference		
Enabled						
Sleep (S3) - WOL Enabled	0.365 W	0.372 W	0.425 W	Reference		
Sleep (S3) - WOL Disabled	0.365 W	0.372 W	0.425 W	Reference		
Off (S5) - WOL Enabled	0.195 W	0.207 W	0.261 W	Reference		
Off (S5) - WOL Disabled	0.195 W	0.207 W	0.261 W	Reference		
On (OO) - WOL Disabled						
	14.533 W	14.584 W	14.955 W	Reference		
EPS No-load	0.053 W	0.052 W	0.149 W			
(External power supply / charger plugged in the wall outlet but disconnected from the product.)						
PTEC *	W	W	W			
Typical Energy Consumption						
ETEC *	14.533 kWh/year	14.584 kWh/year	14.955 kWh/year			
Annual Energy Consumption External Power Supply Efficien	 cv evel (International	 Efficiency Marking Pr	otocol) * · V			
Display resolution * : 1920*108	•	- molonoy walking FI	. •			- -
Default time to enter energy sa						
		on is provided with the	product			_
	lass (monitors only):	on is provided with the	product.	1		- -

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

P10	Emissio		D		00 (0 - 1077	DO)				
D40.4		mission		ccording to ISO 929	96 (See NOTE		a la la la calenda de la calenda			(D)
P10.1	Mode Idle		Mode descri	ption		Statistical upper limit A-	weignted sound	power leve	I, LWA,	□ (B)
	Operatio	n	* 34.2			* 4.3				
	Other mo	ode	<u></u>							
	Measure	ed accor	ding to: 🔀 IS	SO 7779 ECMA-	-74					
			0	ther (only if r	not covered by	ECMA-74)				
Model nur	nher*	81BL,	21 RM				Logo			
							Logo	Len	ov	5
Issue date	*	2017/7	/24							TH
Product	environr	nental	attributes -	Market requiren	nents (contin	ued)		Requi	remei	nt met
Item		ornear	atti ib atoc	markot roquiron		acaj		Yes		
	Electron	nagneti	c emissions							
P10.4				equirement for low t	frequency elect	omagnetic fields of the fo	llowing voluntary	/		
	program	(s):								
P12			computing							
P12.1*	The disp	lay mee	ts the ergono	mic requirements o	f ISO 9241-307	for visual display technology	ogies.			<u> </u>
P12.2*	The phys	sical inp	ut device mee	ets the requirements	s of ISO 9995 a	nd ISO 9241-410.			\boxtimes	1 🔲
P13	Packagi	ng and	documentati	ion						
P13.1*			ng material ty		weight (kg): 0					
			ng material ty		weight (kg): 0					
P13.2*			ng material ty	ging is free from PV	weight (kg): 0	.020			$\overline{\mathbf{X}}$	1 🗖
P13.3*						the contained percentage	o of minimum n	oot		<u> </u>
F13.3			ered fiber con		aging, specify	the contained percentage	e or minimum p	0051-		
P13.4*				oduct documentatio	n (tick box):					
	Electi	ronic, 🔀	Paper, O	ther						
P13.5	(Please	only cor	nplete this ite	m if paper documen	ntation used)					
				ion on paper media	is chlorine-free	:			\geq]
	If Yes, p	lease sp	ecify:							
	Totally c	hlorine-1	free							
	Element	al chlori	ne-free							
	Processo	ed chlor	ine-free							
P14	Volunta	ry prog	rams							
P14.1	The prod	duct me	ets the require	ements of the follow	ing voluntary pr	ogram(s):				
	ENEDO									
	ENERG' Eco-labe		®	Criteria version: 6.1 Criteria version:			category: I1&I2 category:			
	Eco-labe			Criteria version:			category:			
P15			mation (See			. 10000				
P9					may vary; des	scription of the tested p	roduct configur	ation:		
			-	<u>-</u>		•				

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation (EC) No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

Lenovo ErP Lot3 Information Sheet - PC / Notebook -

As required by COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers (ErP Lot3).

Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

This document is only valid in connection with the IT Eco Declaration of the specific Product.

Commercial name	Lenovo ideapad 520S-14	Logo	
Model Number	81BL, 81BM		Lenovo
Issue Date	2017/7/24		reliovo"
Additional information			

	Product environmental attributes						
(d)	year of manufacture:				2017		
e)	Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are disabled and if the system is tested with switchable graphics mode with UMA driving the display.						
(f)	Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are enable						
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C (according to ErP Lot 3)	Category D (according to ErP Lot 3)		
	Memory over base [GB]	4	4				
ents sting	Additional internal storage	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)		
capability adjustments applied during testing	Discrete television tuner	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)		
ability a	Discrete Audio Card	No (Yes / No)	No (Yes / No)	(Yes / No)	(Yes / No)		
cap	Discrete graphics Card(s) [number / #]	No #: (Yes / No)	Yes #: 1 (Yes / No)	#: (Yes / No)	#: (Yes / No)		
	Category of discrete graphics Card(s)		G3				
esults	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	10.18	7.38				
Test results	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled						
(g)	Idle state power demand (Watts);	1	1	Cai	t.A: 2.828 Cat. B: 2.146		
(h)	Sleep mode power demand (Watts);			Ca	t.A: 0.416 Cat. B 0.425		
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);	Ca	t.A: 0.416 Cat. B 0.425		
(j)	Off mode power demand (Watts);			Cat	A: 0.2445 Cat. B 0.26		
(k)	Off mode with WOL enabled power dema	and (Watts) (where en	abled);	Cat	A: 0.2445 Cat. B 0.26		
(I)	Internal power supply efficiency at 10 %,	20 %, 50 % and 100 °	% of rated output pow	er (if applicable):			
	10% 20% 50%	100% Avera	age				
(m)	external power supply efficiency (if applic	cable)*:					
	Average active efficiency: 45W:88.40%,	;88.64%;88.53%;65W	÷ 89.23%,89.31%,88	.93%			
	*internal note: show values for all available external po						
(o)	Minimum number of loading cycles that t	he batteries can withs	tand (applies only to r	notebook computers):	300		
(p-1)	Measurement methodology used to determine information mentioned in points (I) – internal PSU efficiency: NA						
(p-2)	Measurement methodology used to dete EPA "Test Method for Calculating the		f Single-voltage Ext				

(p-3)	p-3) Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: IEC 61960 measurement methodology						
(p-4)	Measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration: IEC 62623/IEC EN50564:2011 measurement methodology						
(q)	Sequence of steps for	or achieving a stable condition with respect to power IEC 62623/IEC EN50564:2011 measurement re					
(r)	Description of how sl	eep and/or off mode was selected or programmed: Energy-star requirement					
(s)	Sequence of events off mode:	required to reach the mode where the equipment au Energy-star requirement	tomatically changes to sleep and/or				
(t)		te condition before the computer automatically removed the applicable power demand requirement		30			
(u)		r a period of user inactivity in which the compute ver power demand requirement than sleep mode (in		NA			
(v)	Length of time befo	re the display sleep mode is set to activate after	user inactivity (in minutes):	10			
(w)	Information on the er	nergy-saving potential of power management functio Based on user manual	nality:				
(x)	user information on h	now to enable the power management functionality: Based on user manual					
(z)	•	neasurements: — test voltage in V and frequency in tem, — information and documentation on the instru 230V/50Hz, Total Harmonic Distortion	mentation, set-up and circuits used				
A dditio	n Netchaelt Bettemt	·	~2 /8				
Addition	n Notebook Battery	Battery[ies] not user replaceable	Battery[ies] user replaceable	n/a			
		The battery[ies] in this product cannot be easily replaced by users themselves. 1)					
Internal/	built-in Battery						
External	/detachable Battery						
Bios Backup Battery							
Other:							
Addition	al information						
1) The battery[i	es] in this product cannot be	easily replaced by users themselves.					

Акумулаторната[ите] батерия[и] в този продукт не може да се замени[ят] лесно от самите потребители. Las baterías de este producto no pueden ser sustituidas fácilmente por los propios usuarios.

Výměnu baterie/baterií v tomto výrobku by neměli provádět sami uživatelé.

Brugeren kan ikke uden videre udskifte batteriet/batterierne i dette produkt.

Der Akku/die Akkus dieses Produkts kann/können nicht ohne weiteres vom Benutzer selbst ausgetauscht werden.

Kasutajad ei saa selle toote akut/akusid ise hõlpsasti asendada. Η μπαταρία[-ες] στο προϊόν αυτό δεν μπορούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες La/les batterie(s présente(s) dans ce produit ne peuvent être facilement remplacée(s) par les utilisateurs eux-mêmes.

Korisnik ne može lako zamijeniti Bateriju sam u ovom proizvodu.

La batteria/le batterie in questo prodotto non può/possono essere facilmente sostituita/e dall'utente. Lietotāji paši nevar nomainīt šā ražojuma akumulatoru(-us).

Šio gaminio baterijos [baterijų] pats vartotojas negali lengvai pakeisti. A termék akkumulátorát/akkumulátorait a felhasználó nem tudja egyedül egyszerűen kicserélni. II-batterija/batteriji f'dan il-prodott ma tistax/jistgħux tiġi/jiġu sostitwita/i mill-utenti stess.

Batteriet [ene] i dette produktet kan ikke lett erstattes av brukerne selv.

De batterij(en) in dit product is (zijn) door de gebruiker niet gemakkelijk vervangbaar.

Użytkownik nie może sam w łatwy sposób wymienić baterii w tym produkcie.

A ou as baterias deste produto não podem ser facilmente substituídas pelos próprios utilizadores.

Bateria (bateriile) din acest produs nu poate (pot) fi ușor înlocuită (înlocuite) de utilizatorii înșiși. Batériu(-ie) v tomto výrobku nemôže vymieňať používateľ.

Baterij/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati. Tämän tuotteen akku [akut] ei[vät] ole helposti käyttäjän vaihdettavissa. Det är inte enkelt för kunden att själv byta ut batteriet/batterierna.

Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.